1/16

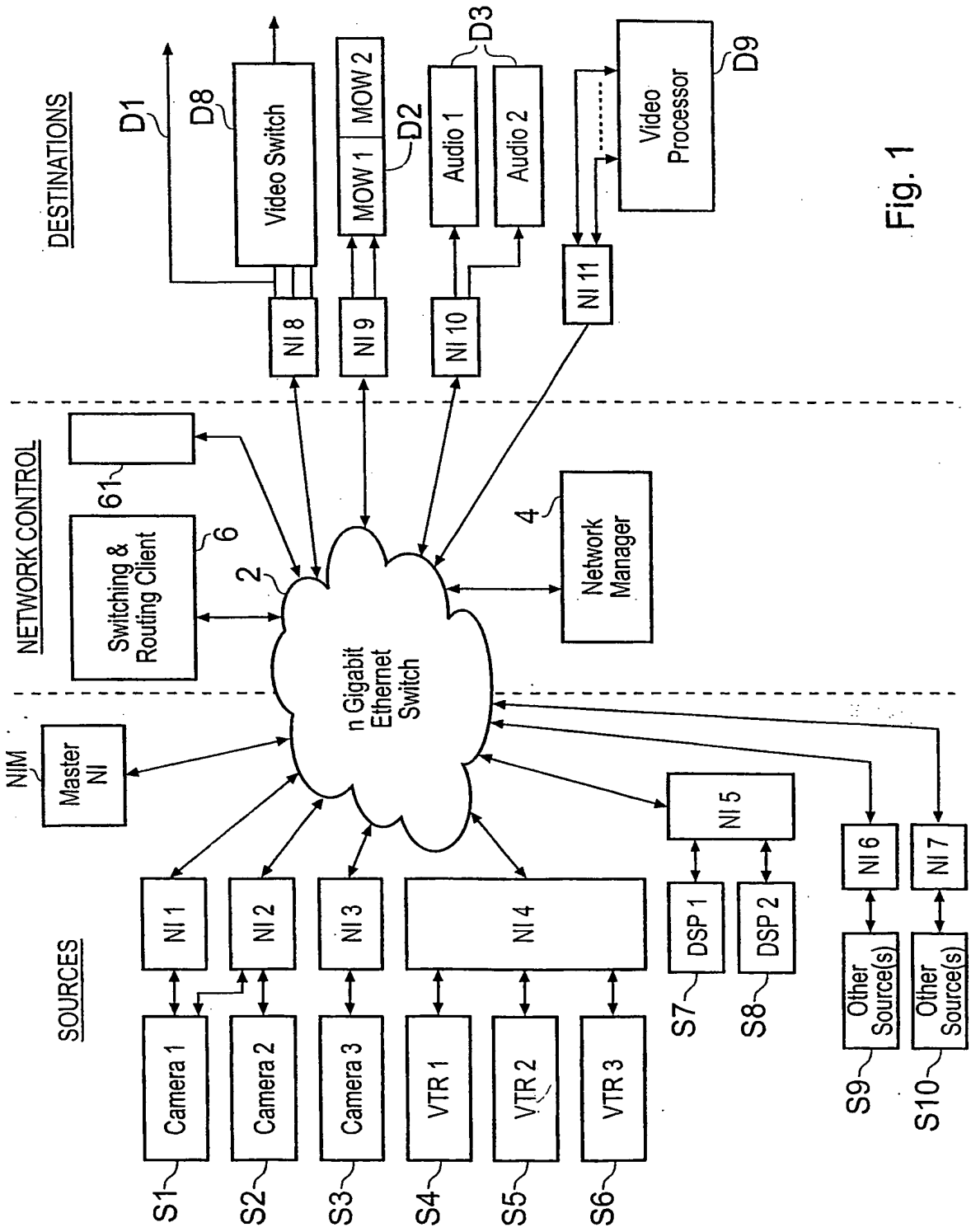

DESTINATIONS
D1
D8
Video Switch
MOW 1
MOW 2
D2
Audio 1
Audio 2
D3
Video Processor
D9
NI 8
NI 9
NI 10
NI 11
NETWORK CONTROL
61
Switching & Routing Client
6
2
n Gigabit Ethernet Switch
4
Network Manager
NIM
Master NI
SOURCES
NI 1
NI 2
NI 3
NI 4
NI 5
NI 6
NI 7
DSP 1
DSP 2
Other Source(s)
Other Source(s)
Camera 1
Camera 2
Camera 3
VTR 1
VTR 2
VTR 3
S1
S2
S3
S4
S5
S6
S7
S8
S9
S10

Fig. 1

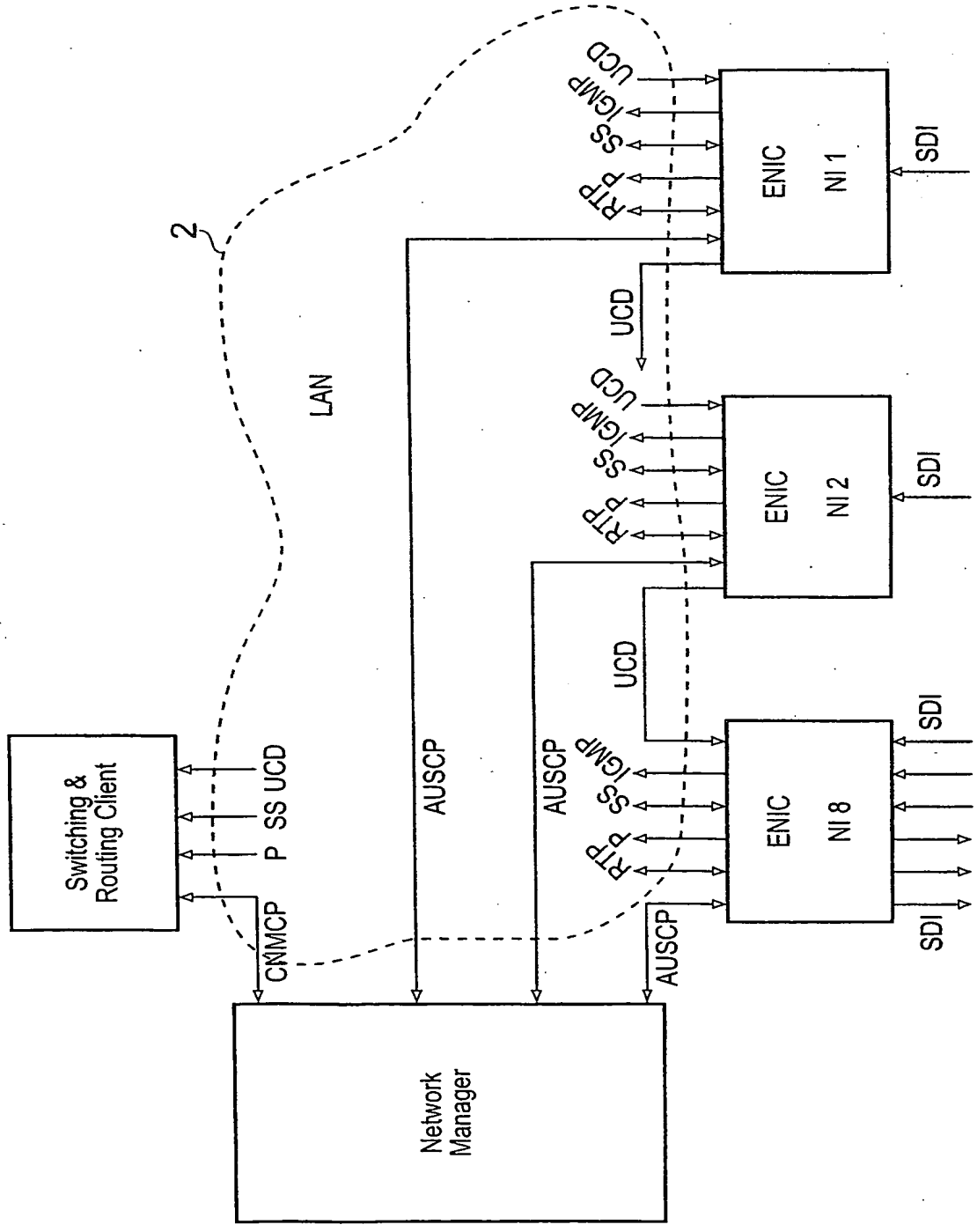

2
LAN
Switching & Routing Client
P SS UCD
CNMCP
AUSCP
AUSCP
AUSCP
Network Manager
ENIC NI 1
ENIC NI 2
ENIC NI 8
UCD
IGMP
SS
RTP
SDI

Fig. 2

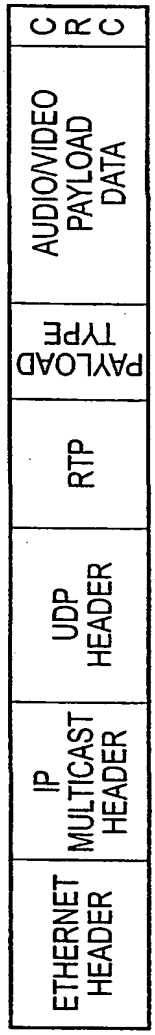


Fig. 3A AUDIO/VISUAL

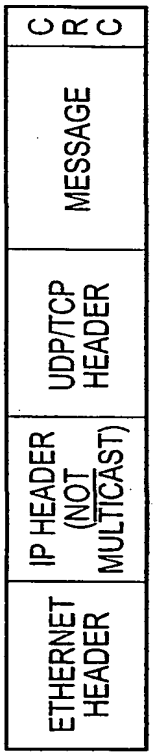


Fig. 3B AVSCP/CNMCP

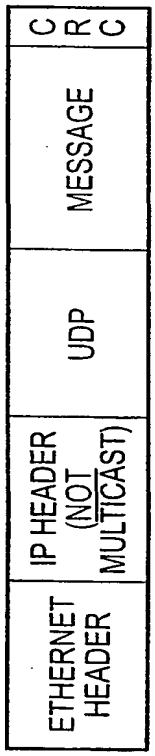


Fig. 3C

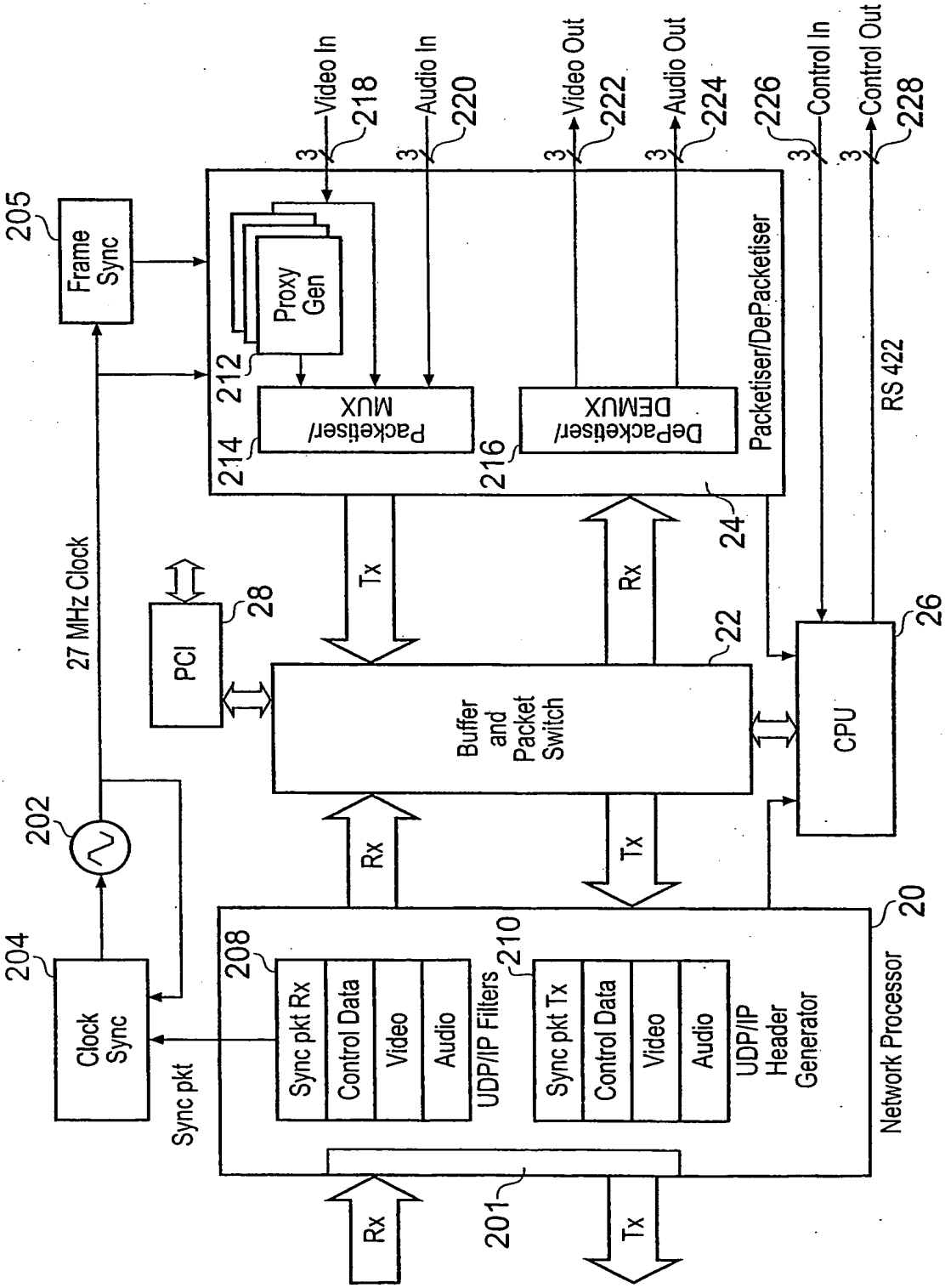
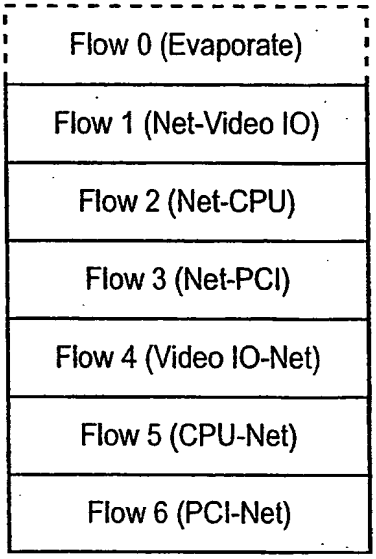
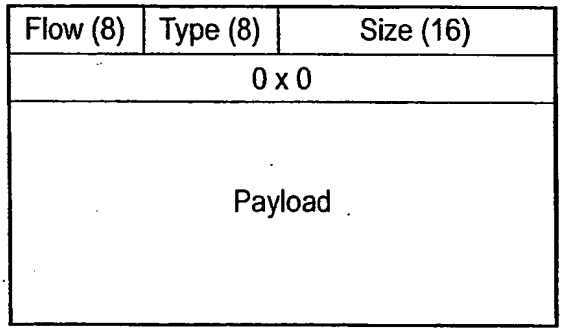

Video In
218
Audio In
220
Video Out
222
Audio Out
224
Control In
226
Control Out
228
3
205
Frame Sync
Proxy Gen
212
Packetiser MUX
214
DePacketiser DEMUX
216
Packetiser/DePacketiser
RS 422
24
Tx
Rx
27 MHz Clock
PCI
28
22
Buffer and Packet Switch
CPU
26
202
204
Clock Sync
Sync pkt
208
Sync pkt Rx
Control Data
Video
Audio
UDP/IP Filters
210
Sync pkt Tx
UDP/IP Header Generator
Network Processor
20
201

Fig. 4



Example of the current flow assignment

Fig. 5B



Example of a packet with a tag

Fig. 5A

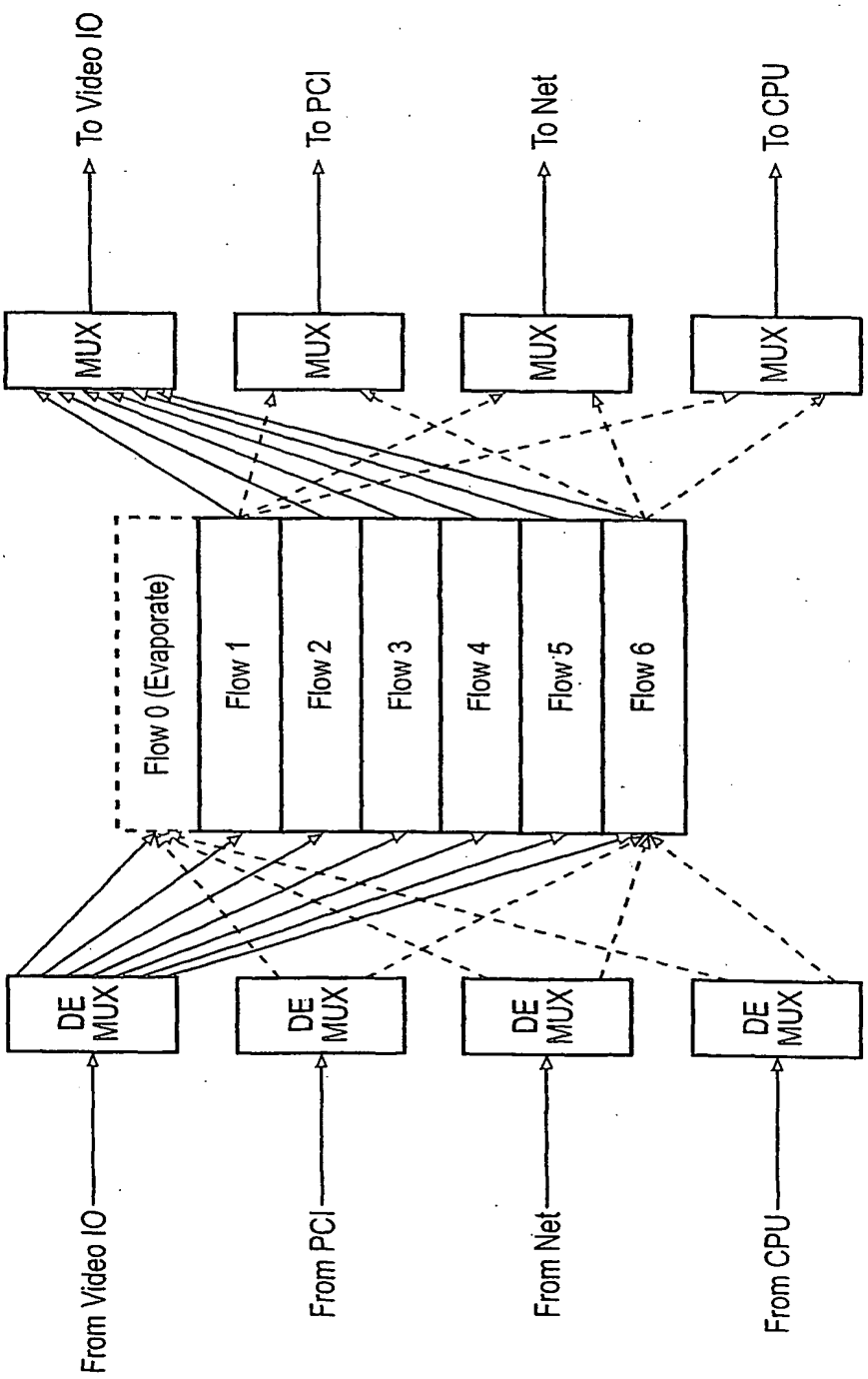

To Video IO
To PCI
To Net
To CPU
MUX
MUX
MUX
MUX
Flow 0 (Evaporate)
Flow 1
Flow 2
Flow 3
Flow 4
Flow 5
Flow 6
DE MUX
DE MUX
DE MUX
DE MUX
From Video IO
From PCI
From Net
From CPU

Fig. 5C

Fig. 6A

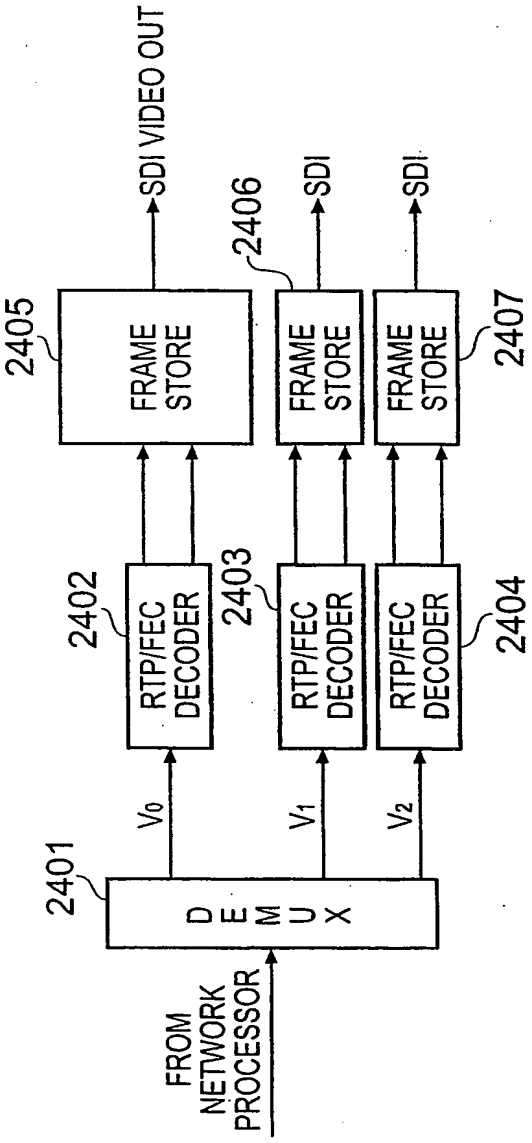
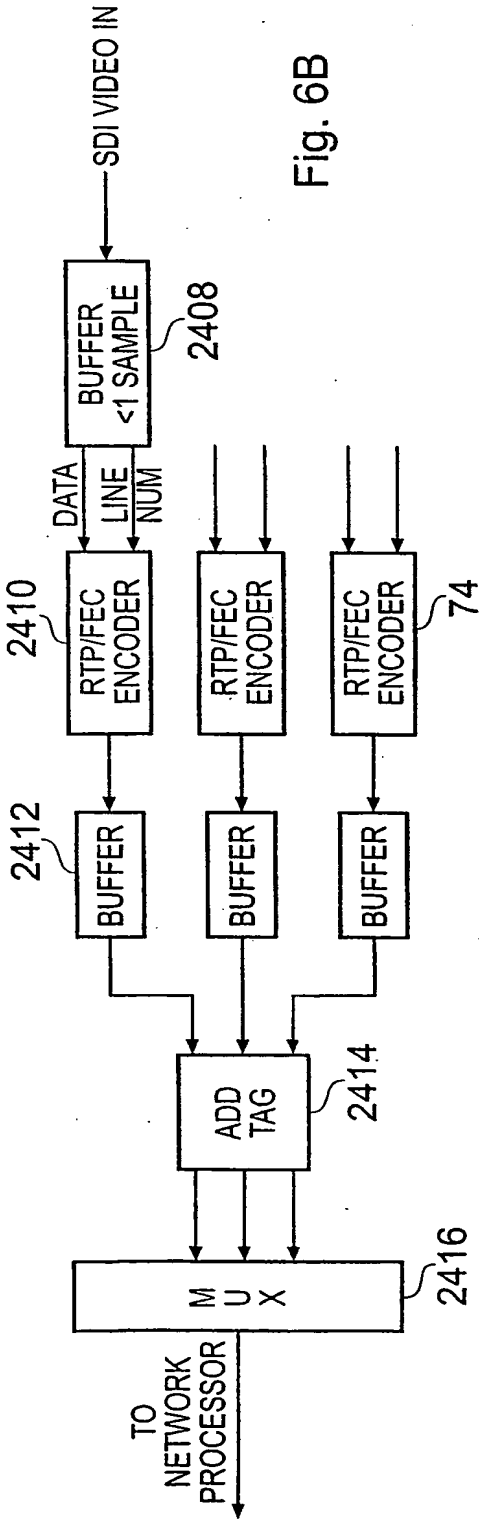

SDI VIDEO OUT
SDI
SDI
2406
2405
FRAME STORE
FRAME STORE
FRAME STORE
2407
2402
RTP/FEC DECODER
2403
RTP/FEC DECODER
RTP/FEC DECODER
2404
V0
V1
V2
2401
DEMUX
FROM NETWORK PROCESSOR

Fig. 6B


SDI VIDEO IN
BUFFER <1 SAMPLE
2408
DATA
LINE NUM
2410
RTP/FEC ENCODER
RTP/FEC ENCODER
RTP/FEC ENCODER
74
2412
BUFFER
BUFFER
BUFFER
ADD TAG
2414
MUX
2416
TO NETWORK PROCESSOR

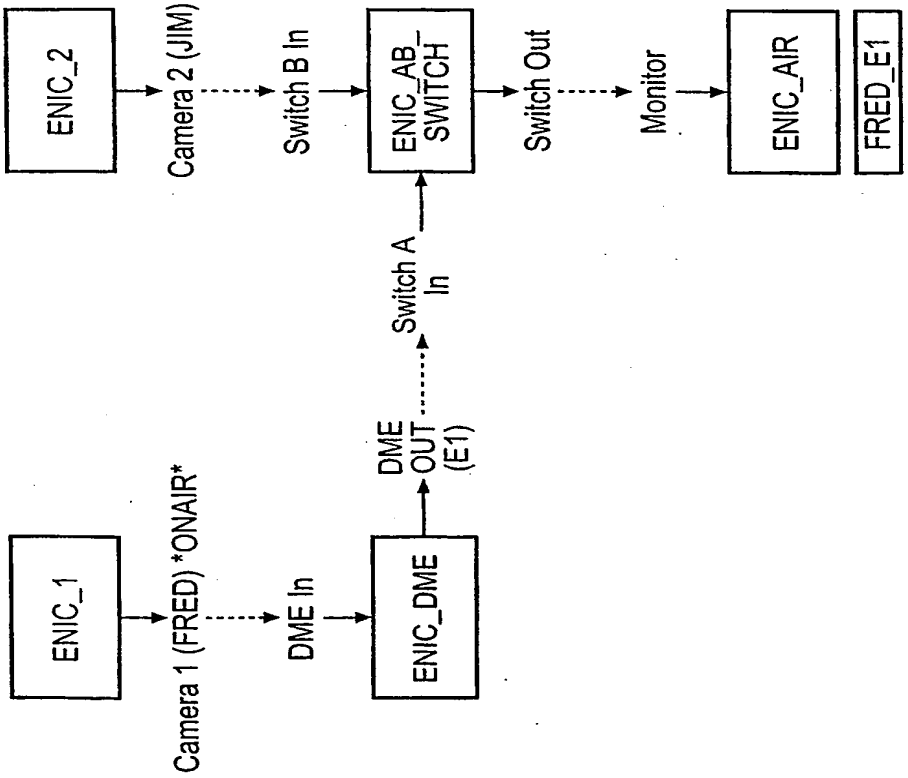

ENIC_2
Camera 2 (JIM)
Switch B In
ENIC_AB_ SWITCH
Switch Out
Monitor
ENIC_AIR
FRED_E1
Switch A In
DME OUT (E1)
ENIC_1
Camera 1 (FRED) *ONAIR*
DME In
ENIC_DME

Fig. 7

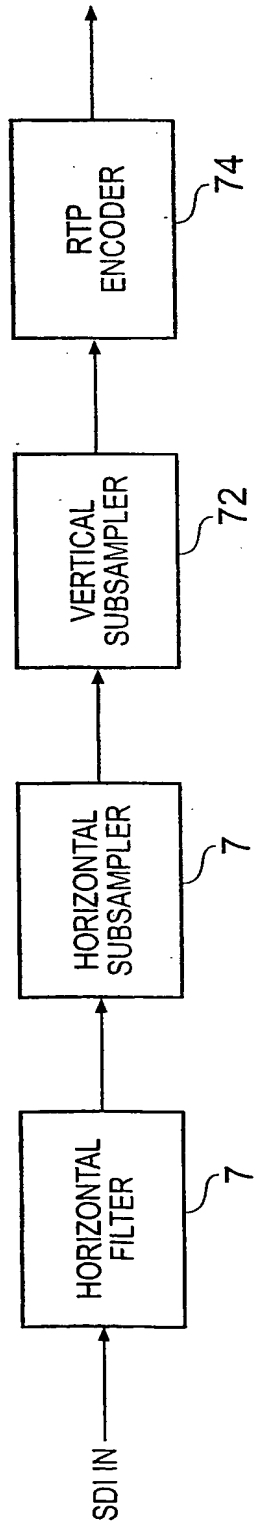

SDI IN
HORIZONTAL FILTER
7
HORIZONTAL SUBSAMPLER
7
VERTICAL SUBSAMPLER
72
RTP ENCODER
74

Fig. 8

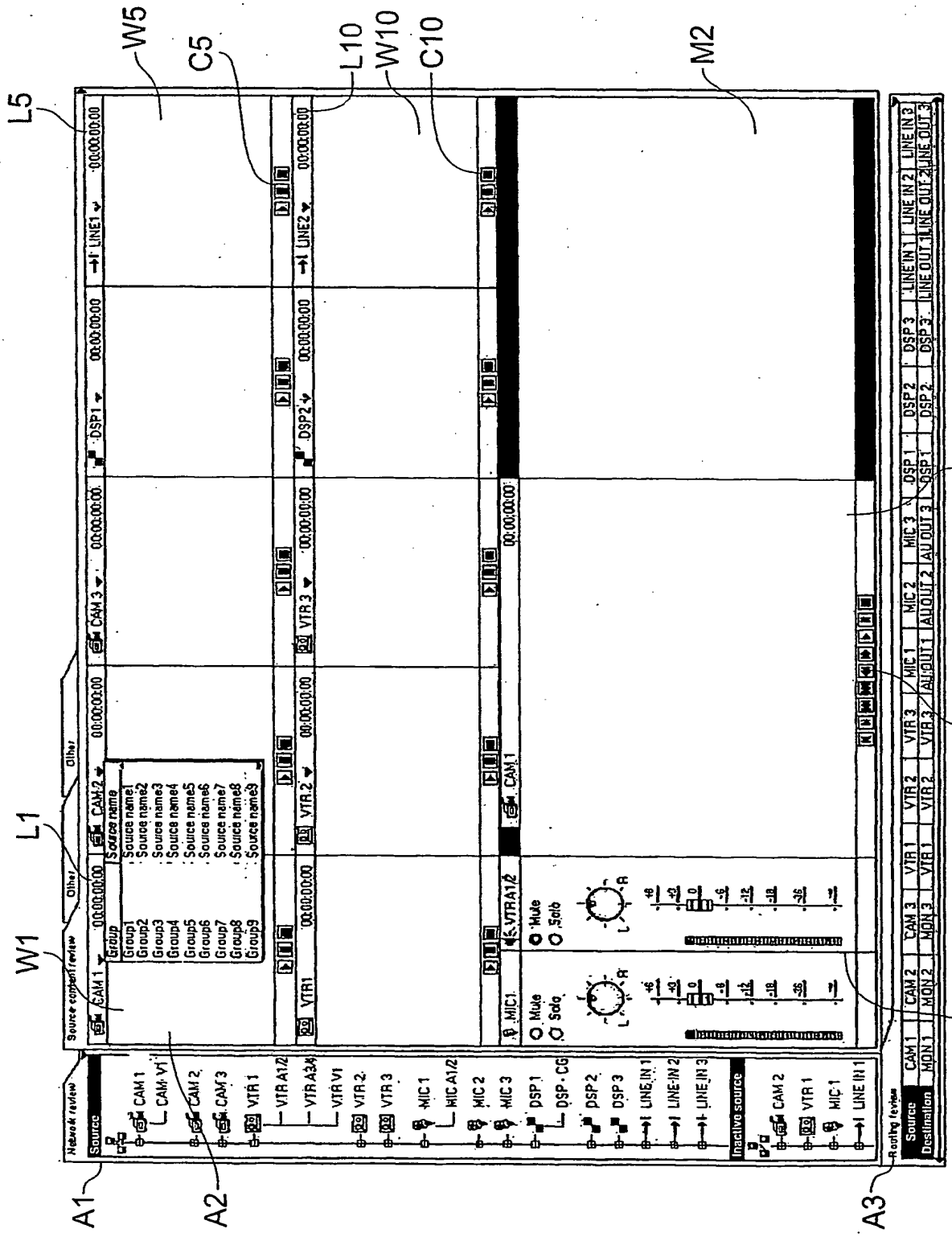


Fig. 9

BEST AVAILABLE COPY

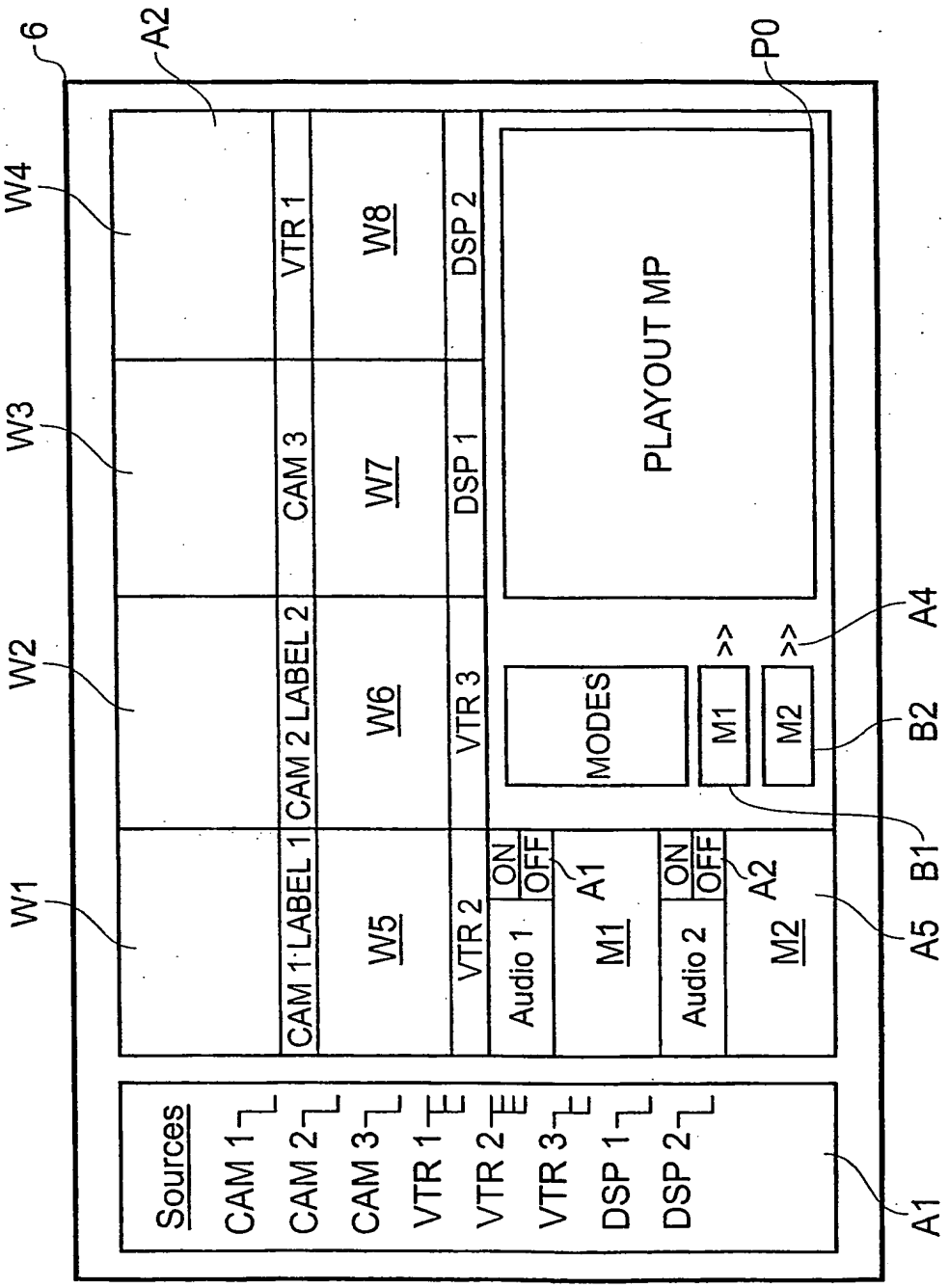

6
A2
P0
W4
W3
W2
W1
VTR 1
W8
DSP 2
CAM 3
W7
DSP 1
CAM 2 LABEL 2
W6
VTR 3
CAM 1 LABEL 1
W5
VTR 2
PLAYOUT MP
MODES
M1
M2
>>
>>
A4
B2
B1
ON
OFF
Audio 1
A1
M1
ON
OFF
Audio 2
A2
M2
A5
Sources
CAM 1
CAM 2
CAM 3
VTR 1
VTR 2
VTR 3
DSP 1
DSP 2
A1

Fig. 10

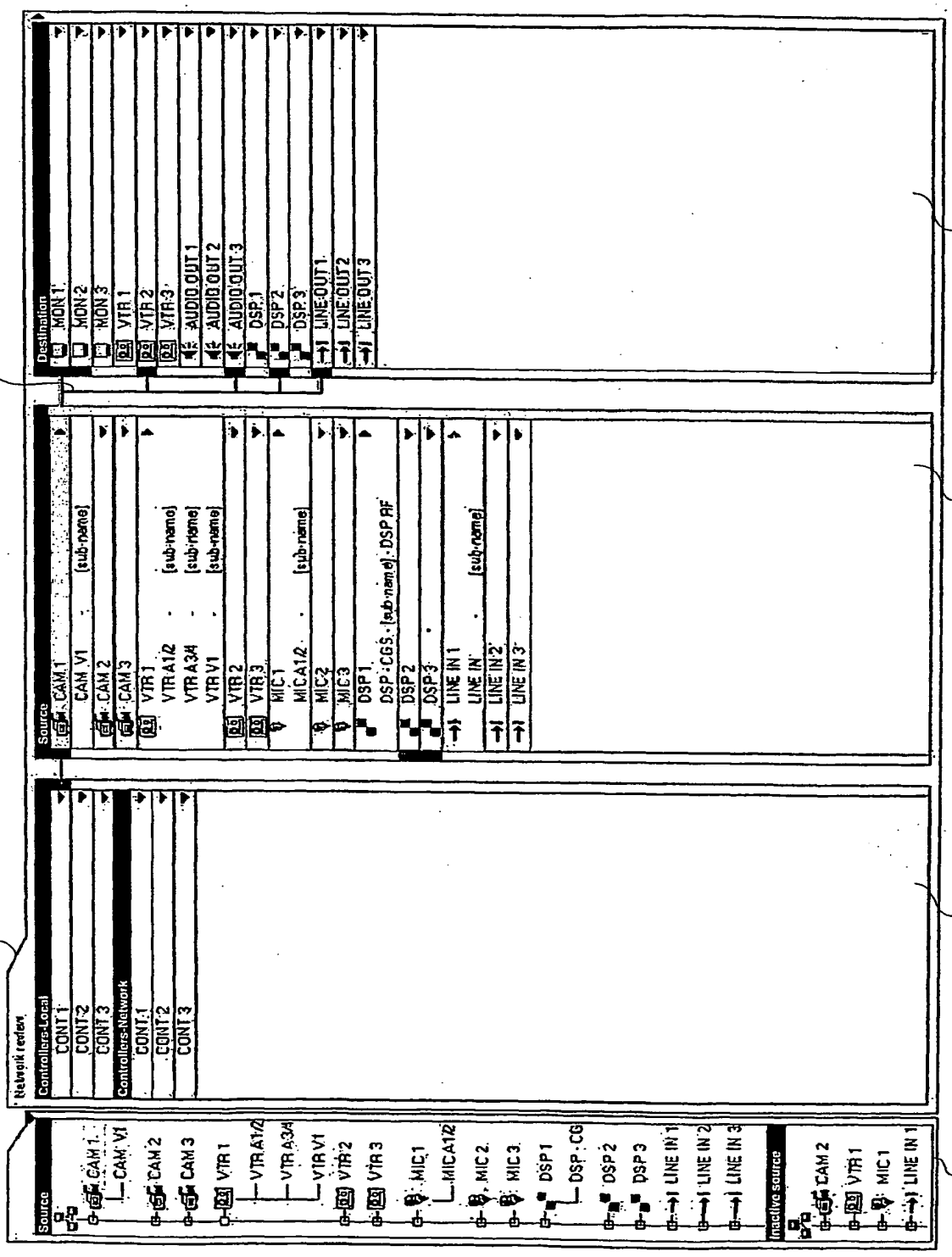


Fig. 11

BEST AVAILABLE COPY

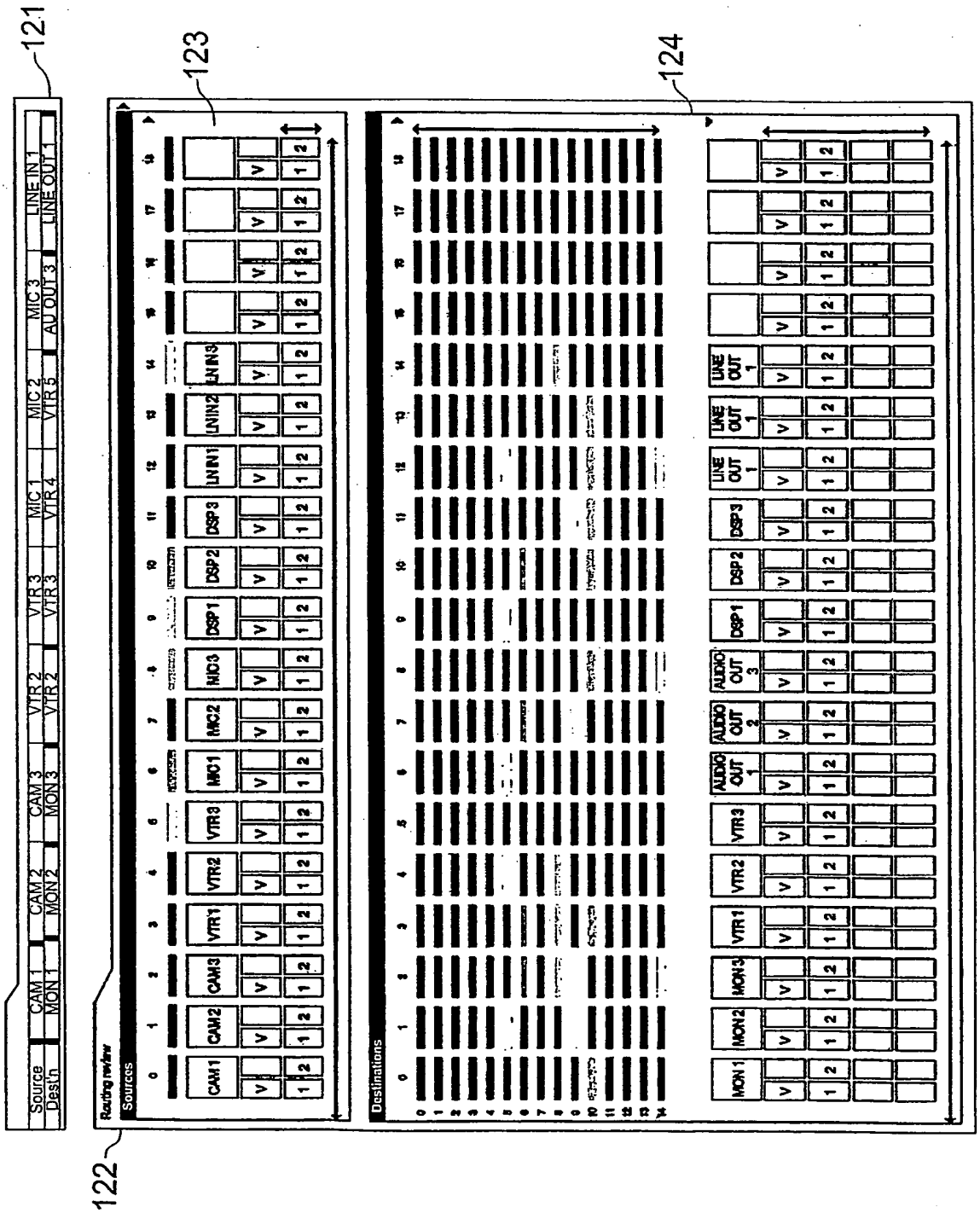


Fig. 12

BEST AVAILABLE COPY

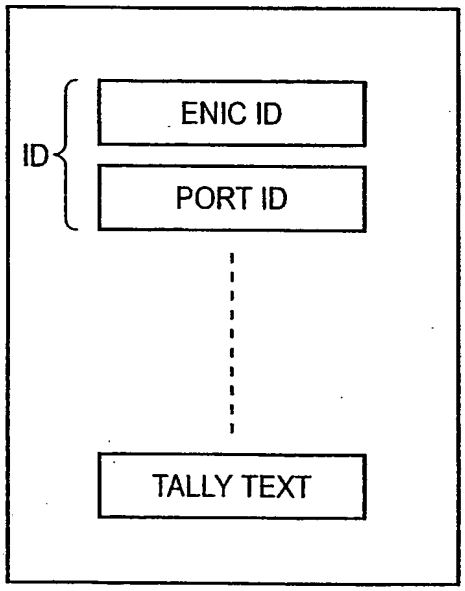


Fig. 13

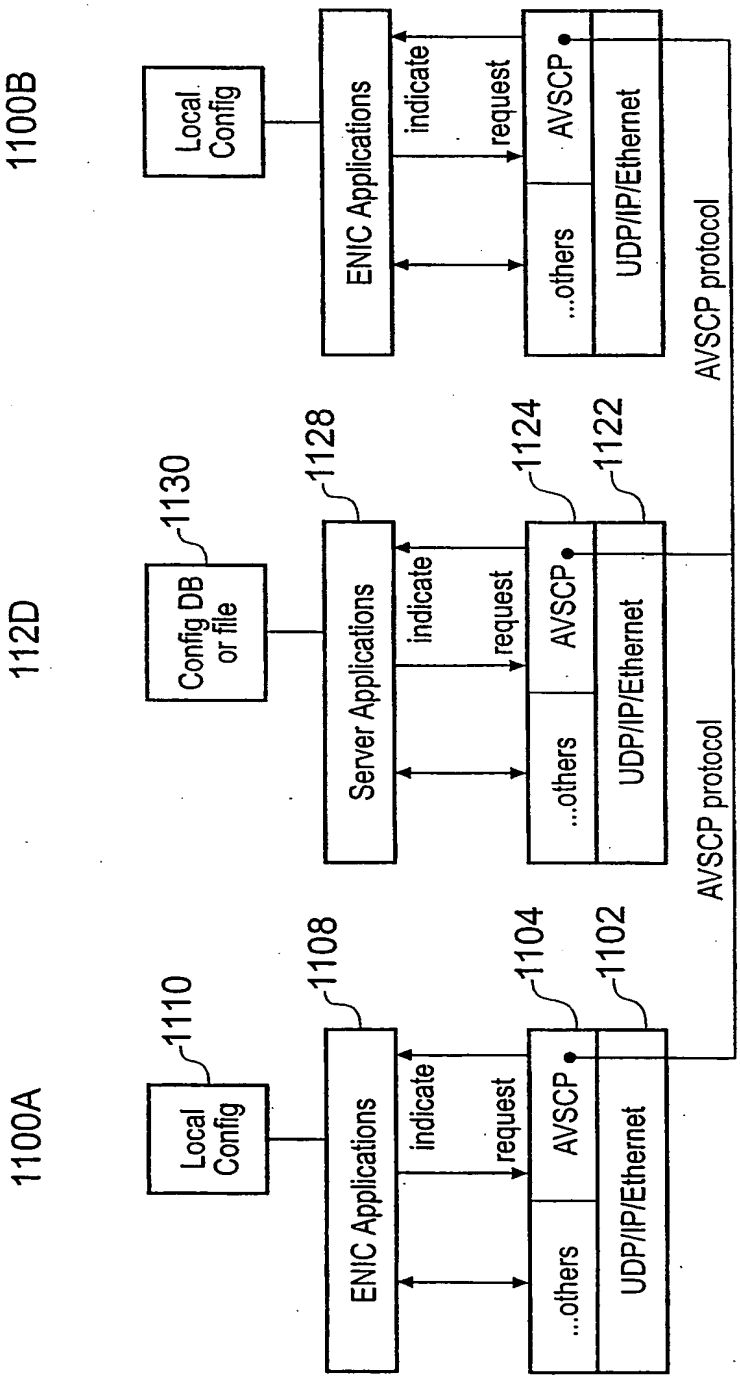

1100B
Local Config
ENIC Applications
indicate
request
AVSCP
...others
UDP/IP/Ethernet
AVSCP protocol
112D
1130
Config DB or file
1128
Server Applications
1124
1122
1100A
1110
Local Config
1108
ENIC Applications
1104
1102

Fig. 14

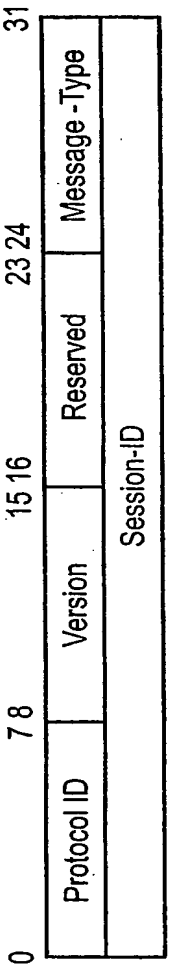

0
7 8
15 16
23 24
31
Protocol ID
Version
Reserved
Message -Type
Session-ID

Fig. 15